Office Action dated June 29, 2004
Reply dated September 29, 2004

Appl. No. 09/658,778
Docket No. 4450-0249P
Art Unit: 2662
Page 3 of 11

AMENDMENTS TO CLAIMS

Please amend the claims as follows:

1.   (*Currently amended*) A method of allocating bandwidth capacity for data frames transmitted over a [SONET/SDH] SONET ring, comprising the steps of:

subdividing a payload portion of at least one of the [SONET/SDH] SONET data frames comprising a [SONET/SDH] SONET layer into two or more logical channels, each logical channel having associated therewith a predetermined bandwidth capacity;

assigning a protection mechanism to each logical channel; and

monitoring the [SONET/SDH] SONET ring transmission to determine protection mechanisms associated with each logical channel.

2.   (*Original*) The method of claim 1 wherein the data frames comprise a plurality of STS level one frames.

3.   (*Currently amended*) The method of claim 2 wherein the protection mechanism comprises one of a layer 1 [SONET/SDH] SONET protection mechanism and a layer 2 protection mechanism.

Office Action dated June 29, 2004
Reply dated September 29, 2004

Appl. No. 09/658,778
Docket No. 4450-0249P
Art Unit: 2662
Page 4 of 11

4.   (*Currently amended*) The method of claim 3 wherein, if the protection mechanism assigned to a particular logical channel is not layer 1, the bandwidth capacity for the particular logical channel is allocated among three or more nodes comprising the [SONET/SDH] <u>SONET</u> ring.

5.   (*Original*) The method of claim 3 wherein the layer 1 protection mechanism comprises a bidirectional line switched ring protection mechanism.

6.   (*Original*) The method of claim 3 wherein the layer 1 protection mechanism comprises a unidirectional path switched ring protection mechanism.

7.   (*Original*) The method of claim 3 wherein the layer 2 protection mechanism comprises at least one of: an Ethernet protection mechanism, an asynchronous transport mode protection mechanism, or a time division multiplexing protection mechanism.

8.   (*Currently amended*) A network node for use in a
[SONET/SDH] SONET ring, comprising:

a first circuit configured to subdivide a payload portion of
at least one of [SONET/SDH] SONET data frames comprising a
[SONET/SDH] SONET layer into two or more logical channels, each
logical channel having associated therewith a predetermined
bandwidth capacity;

a second circuit configured to assign a protection mechanism
corresponding to a [SONET/SDH] SONET protection level to each
logical channel; and

a third circuit operable to monitor the [SONET/SDH] SONET
layer to determine protection mechanisms associated with each
logical channel.

9. (*Original*) The network node of claim 8 wherein the data
frames comprise a plurality of STS level one frames.

10.   (*Currently amended*) The network node of claim 9 wherein
the protection mechanism comprises one of a layer 1 [SONET/SDH]
SONET protection mechanism and a layer 2 protection mechanism.

11. (*Currently amended*) The method of claim 10 wherein, if the protection mechanism assigned to a particular logical channel is not layer 1, the bandwidth capacity for the particular logical channel is allocated among three or more nodes comprising the [SONET/SDH] SONET ring.

12. (*Original*) The method of claim 10 wherein the layer 1 protection mechanism comprises a bidirectional line switched ring protection mechanism.

13. (*Original*) The method of claim 10 wherein the layer 1 protection mechanism comprises a unidirectional path switched ring protection mechanism.

14. (*Original*) The method of claim 10 wherein the layer 2 protection mechanism comprises at least one of: an Ethernet protection mechanism, an asynchronous transport mode protection mechanism, or a time division multiplexing protection mechanism.

15. (*Original*) The network node of claim 8 wherein the data frames comprise a plurality of VT-1.5 level frames.

16. (*Previously Presented*) The method of claim 2 wherein the data frames comprise a plurality of non-contiguous STS level one frames.

17. (*Previously presented*) The network node of claim 9 wherein the data frames comprise a plurality of non-contiguous STS level one frames.

18. (*Currently amended*) The method of claim 1, further comprising storing data from two or more logical channels within a single one of the [SONET/SDH] SONET data frames.

19. (*Currently amended*) The method of claim 1, wherein the one or more logical channels of the [SONET/SDH] SONET layer are transmitted over a common carrier channel.

20. (*Currently amended*) The network node of claim 8, wherein the first circuit is further configured to store data from two or more logical channels within a single one of the [SONET/SDH] SONET data frames.

Office Action dated June 29, 2004
Reply dated September 29, 2004

Appl. No. 09/658,778
Docket No. 4450-0249P
Art Unit: 2662
Page 8 of 11

21. (*Currently amended*) The network node of claim 8, wherein the one or more logical channels of the [SONET/SDH] <u>SONET</u> layer are transmitted over a common carrier channel.